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61/18**Kloppenborg** [DK/DK]; Gammel Stationsvej 10,  
DK-4930 Maribo (DK).

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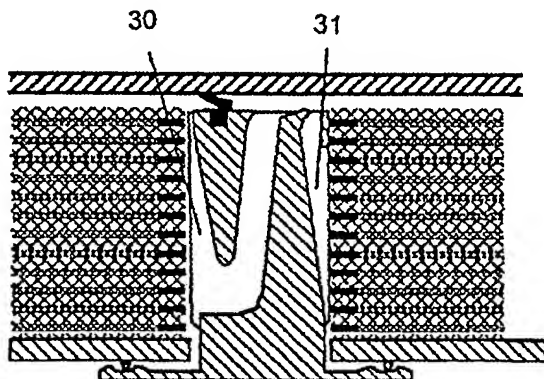
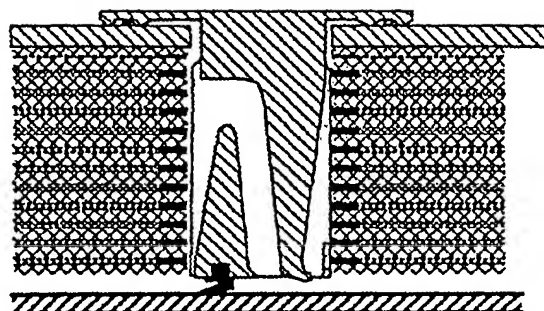
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European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,

[Continued on next page]

(54) Title: A SPIRAL WOUND MEMBRANE ELEMENT AND A PROCESS FOR PREVENTING TELESCOPING OF THE  
FILTER ELEMENT(57) Abstract: A process for ultrafiltration using a spiral wound  
membrane filter is disclosed where the pressure in the space be-  
tween the filter element and the pressure vessel is higher than or  
equal to the pressure inside the filter element. Using these condi-  
tions the static force created by the pressure provides a high friction  
between different sheets in the spiral wound filter element, which  
efficiently prevents unwinding or telescoping of the filter element.  
Using this configuration it is possible to perform the ultrafiltration  
using a higher differential pressure across the filter element than  
would otherwise have been possible which leads to a higher effi-  
ciency and a low energy consumption. Further an anti telescoping  
device (ATD) and a spiral wound filter element, which are particu-  
larly suited for the disclosed process, are described.

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ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Declaration under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS,*

*MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*

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## INTERNATIONAL SEARCH REPORT

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PCT/EP 02/00816

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B01D63/12 B01D61/18

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,A	WO 02 051529 A (DSS DANISH SEPARATION SYSTEMS ;LARSEN KNUD VERNER (DK)) 4 July 2002 (2002-07-04) page 3, line 5-8 page 5, line 19 -page 6, line 21 ---	1-11
A	US 6 224 767 B1 (FUJIWARA KOJI ET AL) 1 May 2001 (2001-05-01) the whole document ---	1-11
A	US 4 517 085 A (EDWARDS JAMES H ET AL) 14 May 1985 (1985-05-14) the whole document ---	1-11
A	US 4 296 951 A (ZIMMERLY ROBERT D) 27 October 1981 (1981-10-27) the whole document -----	1-11

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

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